UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,054	12/21/2000	Toshimichi Nagashima	450100-02906	9861

20999 7590 07/11/2006

FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER	
USTARIS, JOSEPH G	
ART UNIT	**PAPER NUMBER**
2623	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/746,054	NAGASHIMA ET AL.	
	Examiner	Art Unit	
	Joseph G. Ustaris	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 25 April 2006 in application 09/746,054. Claims 1-27 are pending. Claims 1, 12, 21, 22, 25, and 26 are amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 3, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2).

Regarding claim 1, Matthews, III et al. (Matthews) discloses an interactive entertainment system that distributes video broadcasts as well as program information to the users (See Fig. 1). The head end or "information supply apparatus" of the system has a database of program information or "summary playback information storage means" and a supplement content database or "additional screen information storage means" (See Fig. 1). The program information and supplement content databases store program summary information and additional information content (See Fig. 1 and 2). The enhanced content server or "additional screen information extraction means" is able

to extract supplemental content that will supplement the programming summaries and videos being distributed or "playback distribution means" by the EPG server and continuous media server (See Fig. 1 and 2; column 6 line 30 – column 7 line 40). The user can also define if he wants the distribution of program information to be periodic or "timing specified" or in a selective manner (See column 7 lines 20-40 and column 9 lines 40-55). Furthermore, the program summary information is inherently processed "automatically" by extracting the information from the "broadcasting contents information from a database" (e.g. Fig. 1, database 40 or 46; column 7 lines 30-37) and "uniformly processed" by allocating "the extracted broadcasting contents information by field using a template" (See Fig. 2; column 6 line 64 – column 7 line 7) in order to produce the data structured database at the head end (See Fig. 2; column 7 lines 30-37). However, Matthews does not disclose (1) a "user authentication means for receiving authentication information and authenticating the user of the broadcasting contents summary information", (2) processing the "broadcasting contents information" to generate a child screen for each scene change, (3) a method where the head end is able to search the program information database based on a user's search criteria, (4) processing the "broadcasting contents information" by extracting an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be "uniformly processed", (5) a compressing means to compress the program information, and (6) "wherein a logical condition for deciding search conditions by a plurality of input keywords is selected".

(1) Iwafune et al. (Iwafune) discloses a server system utilized in an interactive television system. The server has an authentication processing application program or "user authentication means" that processes a user identifier or "authentication information" of a user or "authenticating the user" that is using the interactive television system (See column 1 lines 9-15; column 2 lines 32-47; column 6 lines 58-65). The authentication processing application program then loads information that is associated with the user identifier (See column 3 lines 20-28). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to include an authentication processing application program that can "authenticate users" using "authentication information", as taught by Iwafune, in order to provide an efficient means of identifying and managing various users of the interactive entertainment system.

(2) Teicher et al. (Teicher) discloses an interactive entertainment system that allows users to browse video motion pictures. The server of the system is able to process the videos or "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change (See Figs. 1-3; column 3 line 12 – column 4 line 39). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process the "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change, as taught by Teicher, in order expand the capabilities of the system thereby allowing the user to efficiently browse through various content.

(3) Dunn discloses an interactive entertainment network system where the user has the capability to search for programs stored at the head end. The user defines specified criteria or "specified condition information" at the user interface unit or set-top box (STB) and that is sent to the head end where the head end would begin the search based on the specified criteria or "summary playback information search means" (See column 2 line 65 – column 3 line 25). Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the head end disclosed by Matthews to be able to search the program information based on a specified criteria, as taught by Dunn, in order to provide the user the capability of finding only the programs that are of interest or desired, thus reducing the browsing time for the user.

(4) Thomas et al. (Thomas) discloses a data management distribution system for EPGs. The system is able to collect EPG data from various sources and provide the EPG data to various providers (See Fig. 1). The system is able to process the EPG data in two different manners: 1. the system retrieves the various EPG data automatically and processes the data using the automated data collection system or "uniformly processed" (See Fig. 1, element 10; column 5 lines 52-60) or 2. the system processes and adds data to the EPG database by accepting manual entry of data from an operator, wherein the changes to the EPG database cannot be "uniformly processed" by the automated data collection system (See Fig. 1, element 20; column 4 lines 1-9, column 7 lines 21-25 and column 8 lines 3-9). The manual entry system allows operators to add, correct, and delete EPG data from the database (e.g. titles and

descriptions or "keywords"), where inherently the operator provides an "information identifier" in order to identify which data parts needs to be modified (See column 7 lines 37-44 and column 7 line 54 – column 8 line 2). (5) Furthermore, Thomas discloses that the EPG data is compressed into MPEG packets or "summary contents shortening means for compressing" before sending it over a transmission medium (See column 11 lines 22-27). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to (4) processing the "broadcasting contents information" by providing an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be "uniformly processed" and (5) to compress data, as taught by Thomas, in order to expand the capabilities of the system thereby providing a convenient means for operators to make changes and to efficiently use the available bandwidth of the transmission medium in order to deliver data in a timely fashion.

(6) Ellis et al. (Ellis) discloses a client-server electronic program guide system. Ellis discloses that a user can create a Boolean expression by selecting logical operators to be used with various other criteria or "plurality of input keywords" (See Figs. 9a and 9b; column 12 line 52 – column 13 line 9). Ellis is evidence that one of ordinary skill in the art would appreciate the ability to create Boolean expressions for deciding search conditions. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process Boolean expressions "wherein

a logical condition for deciding search conditions by a plurality of input keywords is selected", as taught by Ellis, in order to provide a more efficient and accurate means of locating EPG data.

Regarding claim 2, the program information database stores data in a table format. The table gives information such as, storage pointers or "frame numbers" that locates the program within a storage unit. It also lists the times of the broadcasts (See Matthews Fig. 2).

Regarding claim 3, Dunn discloses that the user can use various methods of performing a search. The user provides a viewer ID or "ID specifying broadcasting unit" (See column 9 lines 55-65), specifies a certain star name or "keyword specified by a user" (See column 3 lines 1-5), or species a particular program title or "information ID" (See column 8 lines 1-11). The head end would search based on the criteria provided by the user.

Regarding claim 25, Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis discloses a system that performs the method claimed. Please see claim 1.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2) as applied to claims 1, 2, 3, and 25 above, and further in view of Anderson et al. (US006005631A).

Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis does not disclose a method where the head end returns the search criteria back to the STB along with the program information found by the search.

Anderson et al. (Anderson) discloses a method and apparatus for organizing and searching and EPG. After a search is complete the server or head end generates a list of results and how it relates to the search criteria and it is transmitted to the home communications terminal or STB (See column 12 line 48 – column 13 line 19). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the head end disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis to be able to return the search criteria to the STB, as taught by Anderson, in order to verify and show how the search criteria was met by the search performed by the head end.

Claims 5, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2) as applied to claims 1, 2, 3, and 25 above, and further in view of Abecassis (US006553178B2).

Regarding claim 5, Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis does not disclose a feature where the specified criteria also contains information on a viewable time defined by the user.

Abecassis discloses a Video-on-Demand (VOD) system where the user can define a time and date that the user desires to view the video within a viewer's preferences setting (See column 7 lines 5-15). Furthermore, based on the demand on the system at the user's specified time and date, the system could send the video to the user using burst downloading or "shortening means" (See column 37 lines 30-50). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the head end disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis to be able to allow the user to define a viewable time within the specified criteria, as taught by Abecassis, in order to give the user more flexibility and convenience in deciding when to view the program information.

Regarding claim 6, the time and date specified by the user is also considered a "distribution method ID", wherein the time and date identifies when the head end would distribute the program information (See claim 5).

Regarding claim 7, the head end disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis and in further view of Abecassis allows the user to define if he wants the distribution of program information to be periodic or "daily predetermined time" or in a selective manner (See Matthews column 7 lines 20-40 and column 9 lines 40-55). In the case of the selective manner, Abecassis teaches that the user can define a viewable time or "distributable time" (See claim 5 and 6).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A),

Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2) as applied to claims 1, 2, 3, and 25 above, and further in view of Kamada et al. (US 20030056208A1).

Regarding claim 8, Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis does not disclose a feature where the head end is able to collect viewing results and create statistics.

Kamada et al. (Kamada) discloses a method and device for obtaining audience data on a TV program. The receiver or STB of the system monitors what the user views and records the program ID or "viewing results collection means." The STB continuously monitors the user and periodically sends the results to a collection center or head end or "client management means" where calculations can be made or generating "statistics" (See abstract, paragraphs 0011, 0017, 0082, and 0087). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the head end disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis to be able to collect viewing results and generate statistics, as taught by Kamada, in order to enhance the head end by enabling it to provide the broadcast providers a more accurate means of measuring which programs were viewed or not.

Regarding claim 9, both Matthews and Dunn disclose that the system can perform common tasks such as to conduct banking and other financial transactions, where inherently involves transmitting account information (i.e. account number) to a financial settlement institution (See Matthews column 2 lines 10-25 and Dunn column 7 lines 10-20).

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2) and further in view of Kamada et al. (US 20030056208A1) as applied to claims 8 and 9 above, and further in view of Goldman et al. (US 20030135853A1).

Regarding claim 10, Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis and in further view of Kamada disclose that the supplement content database is also able to store advertisements or "advertisement information storage means" and the advertisements would be distributed in the same manner as described in claim 1 by the enhanced content server and EPG server (See Matthews column 7 lines 5-20). However, Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis and in further view of Kamada does not disclose a method of selecting specific advertisements to be distributed based on users viewing results.

Goldman et al. (Goldman) discloses a system and method of inserting advertisements. The system selects and inserts advertisements or "advertisement selection means" to be displayed to the user, wherein the selection is based in part on television programming viewed by the user or "basis of the viewers statistic information" (See paragraphs 0012-0014). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the head end disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, Ellis and in further

view of Kamada to select advertisements based on the viewing results of the user, as taught by Goldman, in order to provide the user with advertisements that are closely related to their interests.

Regarding claim 11, Official Notice is taken that it is well known to include URLs or web addresses or "communication address of electronic communication network" within an advertisement. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the advertisements disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, and Ellis and in further view of Kamada and Goldman to include URLs or web addresses in order to provide users with an alternative location to retrieve more information about the advertisement contents if needed.

Claims 12-15, 17-20, 22-24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), Ellis et al. (US006898762B2), and Barth (US 20030135864A1).

Regarding claim 12, Matthews, III et al. (Matthews) discloses an interactive entertainment system that distributes video broadcasts as well as program information to the users (See Fig. 1). The head end or "information supply apparatus" of the system delivers information, as discussed in claim 1, to a STB or "information utilization apparatus" (See Fig. 1). The STB has an EPG program that is able to receive and process the information sent by the head end or "summary related information reception

means" (See column 1 lines 55-65). The STB is also able to display the program information and supplemental content on a TV or "additional screen display means" (See Fig. 1, 5, and 7). The EPG program uses the received program information database to locate video programs on the server. The program information is in a table format that has pointers to locate information and video programs on all the databases or "frame search means" (See Fig. 2). Ultimately, the STB would display the video program on the TV or "image playback means" (See Fig. 1 and column 5 lines 40-65). Furthermore, the program summary information is inherently processed "automatically" by extracting the information from the "broadcasting contents information from a database" (e.g. Fig. 1, database 40 or 46; column 7 lines 30-37) and "uniformly processed" by allocating "the extracted broadcasting contents information by field using a template" (See Fig. 2; column 6 line 64 – column 7 line 7) in order to produce the data structured database at the head end (See Fig. 2; column 7 lines 30-37). However, Matthews does not disclose a (1) "user authentication means for receiving authentication information and authenticating the user of the broadcasting contents summary information", (2) processing the "broadcasting contents information" to generate a child screen for each scene change, (3) a method where the STB would allow the user to input search criteria and transmit the criteria to the head end, (4) processing the "broadcasting contents information" by extracting an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be "uniformly processed", (5) "wherein a logical condition

for deciding search conditions by a plurality of input keywords is selected", and (6) a storage device for video programs within the STB.

(1) Iwafune et al. (Iwafune) discloses a server system utilized in an interactive television system. The server has an authentication processing application program or "user authentication means" that processes a user identifier or "authentication information" of a user or "authenticating the user" that is using the interactive television system (See column 1 lines 9-15; column 2 lines 32-47; column 6 lines 58-65). The authentication processing application program then loads information that is associated with the user identifier (See column 3 lines 20-28). Furthermore, the users or viewers enter "authentication information" at the television system or STB and the "authentication information" is used to identify and authenticate the users/viewers (See Fig. 28; column 22 lines 13-42). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to include an authentication processing application program that can "authenticate users" using "authentication information", as taught by Iwafune, in order to provide an efficient means of identifying and managing various users of the interactive entertainment system.

(2) Teicher et al. (Teicher) discloses an interactive entertainment system that allows users to browse video motion pictures. The server of the system is able to process the videos or "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change (See Figs. 1-3; column 3 line 12 – column 4 line 39). Therefore, it would have been obvious to one with ordinary skill in the

art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process the "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change, as taught by Teicher, in order expand the capabilities of the system thereby allowing the user to efficiently browse through various content.

(3) Dunn discloses an interactive entertainment network system where the user has the capability to search for programs or program information stored at the head end. The user defines specified criteria or "specified condition information" at the user interface unit or set-top box (STB) and that is sent to the head end where the head end would begin the search based on the specified criteria (See column 2 line 65 – column 3 line 25). Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the STB disclosed by Matthews to be able to allow the user to input search criteria and send the criteria to the head end, as taught by Dunn, in order to provide the user the capability of finding only the programs that are of interest or desired, thus reducing the browsing time for the user.

(4) Thomas et al. (Thomas) discloses a data management distribution system for EPGs. The system is able to collect EPG data from various sources and provide the EPG data to various providers (See Fig. 1). The system is able to process the EPG data in two different manners: 1. the system retrieves the various EPG data automatically and processes the data using the automated data collection system or "uniformly processed" (See Fig. 1, element 10; column 5 lines 52-60) or 2. the system processes and adds data to the EPG database by accepting manual entry of data from an

operator, wherein the changes to the EPG database cannot be "uniformly processed" by the automated data collection system (See Fig. 1, element 20; column 4 lines 1-9, column 7 lines 21-25 and column 8 lines 3-9). The manual entry system allows operators to add, correct, and delete EPG data from the database (e.g. titles and descriptions or "keywords"), where inherently the operator provides an "information identifier" in order to identify which data parts needs to be modified (See column 7 lines 37-44 and column 7 line 54 – column 8 line 2). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to processing the "broadcasting contents information" by providing an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be "uniformly processed", as taught by Thomas, in order to expand the capabilities of the system thereby providing a convenient means for operators to make changes.

(5) Ellis et al. (Ellis) discloses a client-server electronic program guide system. Ellis discloses that a user can create a Boolean expression by selecting logical operators to be used with various other criteria or "plurality of input keywords" (See Figs. 9a and 9b; column 12 line 52 – column 13 line 9). Ellis is evidence that one of ordinary skill in the art would appreciate the ability to create Boolean expressions for deciding search conditions. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process Boolean expressions "wherein

a logical condition for deciding search conditions by a plurality of input keywords is selected", as taught by Ellis, in order to provide a more efficient and accurate means of locating EPG data.

(6) Barth discloses a digital decoder or STB used within service-on-demand systems such as video-on-demand. Barth discloses that it is well known to store video movies or video programs or "broadcast contents information storage means" in the STB of the user (See paragraph 0006). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to move the video program database from the head end to the STB, as taught by Barth, in order to reduce the load of the transmission medium, thus making to more available to other users.

Claim 13 contains the limitations of claims 2 and 12 and is analyzed as previously discussed with respect to those claims.

Claims 14 and 15 contains the limitations of claims 3, 5-7, and 12 and is analyzed as previously discussed with respect to those claims.

Claim 17 contains the limitations of claims 10 and 12 and is analyzed as previously discussed with respect to those claims.

Claim 18 contains the limitations of claims 11, 12, and 17 and is analyzed as previously discussed with respect to those claims.

Claim 19 contains the limitations of claims 8 and 12 and is analyzed as previously discussed with respect to those claims.

Regarding claim 20, the user is presented with a graphics interface on the display where the user can further define the search criteria or "gradually restricting the specified range" (See Dunn Fig. 4, 5, and 9).

Claim 22 contains the limitations of claims 1 and 12 (wherein the STB and head end form the "information supply system") and is analyzed as previously discussed with respect to those claims.

Claim 23 contains the limitations of claims 8, 19, and 22 and is analyzed as previously discussed with respect to those claims.

Claim 24 contains the limitations of claims 21 and 22 and is analyzed as previously discussed with respect to those claims.

Regarding claim 26, Matthews in view of Iwafune, Teicher, Dunn, Thomas, Ellis, and Barth discloses a system that performs the method claimed. Please see claim 12.

Claim 27 contains the limitations of claims 20 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Dunn (US005945987A), Thomas et al. (US005666645A), Ellis et al. (US006898762B2), and Barth (US 20030135864A1) as applied to claims 12-15, 17-20, 22-24, 26, and 27 above, and further in view of Blackwell et al. (US006449654B1).

Matthews in view of Iwafune, Teicher, Dunn, Thomas, Ellis, and Barth does not disclose a feature where the STB would verify the results of the search received from the head end based on the specified criteria defined by the user.

Blackwell et al. (Blackwell) discloses system and method for retransmitting data within a cable television network. The STB of the system would verify or "certification means" if all the data were received that was supposed to be transmitted by comparing the received data to a manifest or specified criteria (See Fig. 9 and column 15 line 49 – column 16 line 30). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the STB disclosed by Matthews in view of Iwafune, Teicher, Dunn, Thomas, Ellis, and Barth to verify the results of the search received from the head end based on the specified criteria defined by the user, as taught by Blackwell, in order to ensure that all search criteria was met and that the results were successfully transmitted to the STB.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III et al. (US006631523B1) in view of Iwafune et al. (US005880720A), Teicher et al. (US005847703A), Thomas et al. (US005666645A), and Ellis et al. (US006898762B2).

Matthews, III et al. (Matthews) discloses an interactive entertainment system or "information manipulation apparatus" that distributes video broadcasts as well as program information to the users (See Fig. 1). The head end of the system has a database of video programs or "broadcasting contents information storage means" and

an electronic program guide (EPG) server or "information processing server" (See Fig. 1). The EPG server stores program information in a table or "template" (See Fig. 2) and uses the table to locate videos and supplemental content stored at other databases. The continuous media server, EPG server, and enhanced content server work together to store and extract video programs and supplement content to/from their respective databases. The EPG server contains the table or "template" that utilizes pointers to divide the programs stored within the video program database. The servers working in unison is considered the "material information accumulation server" and the EPG server is also considered the "information process means", where the EPG stores tables that contain descriptions or "summary playback information" (See Fig. 1 and 2; column 6 line 30 – column 7 line 40). Furthermore, the program summary information is inherently processed "automatically" by extracting the information from the "broadcasting contents information from a database" (e.g. Fig. 1, database 40 or 46; column 7 lines 30-37) and "uniformly processed" by allocating "the extracted broadcasting contents information by field using a template" (See Fig. 2; column 6 line 64 – column 7 line 7) in order to produce the data structured database at the head end (See Fig. 2; column 7 lines 30-37). However, Matthews does not disclose (1) a "user authentication means for receiving authentication information and authenticating the user of the broadcasting contents summary information", (2) processing the "broadcasting contents information" to generate a child screen for each scene change, (3) processing the "broadcasting contents information" by extracting an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be

"uniformly processed", and (4) "wherein a logical condition for deciding search conditions by a plurality of input keywords is selected".

(1) Iwafune et al. (Iwafune) discloses a server system utilized in an interactive television system. The server has an authentication processing application program or "user authentication means" that processes a user identifier or "authentication information" of a user or "authenticating the user" that is using the interactive television system (See column 1 lines 9-15; column 2 lines 32-47; column 6 lines 58-65). The authentication processing application program then loads information that is associated with the user identifier (See column 3 lines 20-28). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to include an authentication processing application program that can "authenticate users" using "authentication information", as taught by Iwafune, in order to provide an efficient means of identifying and managing various users of the interactive entertainment system.

(2) Teicher et al. (Teicher) discloses an interactive entertainment system that allows users to browse video motion pictures. The server of the system is able to process the videos or "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change (See Figs. 1-3; column 3 line 12 – column 4 line 39). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process the "broadcasting contents information" to generate miniaturized frames or "child screen" for each scene change, as taught by

Teicher, in order expand the capabilities of the system thereby allowing the user to efficiently browse through various content.

(3) Thomas et al. (Thomas) discloses a data management distribution system for EPGs. The system is able to collect EPG data from various sources and provide the EPG data to various providers (See Fig. 1). The system is able to process the EPG data in two different manners: 1. the system retrieves the various EPG data automatically and processes the data using the automated data collection system or "uniformly processed" (See Fig. 1, element 10; column 5 lines 52-60) or 2. the system processes and adds data to the EPG database by accepting manual entry of data from an operator, wherein the changes to the EPG database cannot be "uniformly processed" by the automated data collection system (See Fig. 1, element 20; column 4 lines 1-9, column 7 lines 21-25 and column 8 lines 3-9). The manual entry system allows operators to add, correct, and delete EPG data from the database (e.g. titles and descriptions or "keywords"), where inherently the operator provides an "information identifier" in order to identify which data parts needs to be modified (See column 7 lines 37-44 and column 7 line 54 – column 8 line 2). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to processing the "broadcasting contents information" by providing an information identifier and manually adding "keywords" from an operator when the "broadcasting contents information" cannot be "uniformly processed", as taught by Thomas, in order to expand

the capabilities of the system thereby providing a convenient means for operators to make changes.

(4) Ellis et al. (Ellis) discloses a client-server electronic program guide system. Ellis discloses that a user can create a Boolean expression by selecting logical operators to be used with various other criteria or "plurality of input keywords" (See Figs. 9a and 9b; column 12 line 52 – column 13 line 9). Ellis is evidence that one of ordinary skill in the art would appreciate the ability to create Boolean expressions for deciding search conditions. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interactive entertainment system and head end disclosed by Matthews to process Boolean expressions "wherein a logical condition for deciding search conditions by a plurality of input keywords is selected", as taught by Ellis, in order to provide a more efficient and accurate means of locating EPG data.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 12, 21, 22, 25, and 26 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues with respect to claims 1, 12, 21, 22, 25, and 26 that Matthews does not disclose extracting broadcasting contents information from a database and allocating the extracted broadcasting contents information by field using a template. However, reading the claims in the broadest sense, Matthews does meet that limitation of the claim. The program summary information is inherently processed "automatically"

by extracting the information from the "broadcasting contents information from a database" (e.g. Fig. 1, database 40 or 46; column 7 lines 30-37) and "uniformly processed" by allocating "the extracted broadcasting contents information by field using a template" (See Fig. 2; column 6 line 64 – column 7 line 7) in order to produce the data structured database at the head end (See Fig. 2; column 7 lines 30-37).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JGU
June 28, 2006

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600